

LESSON 2



Exploring Regions of the United States

How do geographers study the regions of the United States?

Introduction

Because Earth is so large, geographers divide it into regions to study. A region is an area with common features that set it apart from other areas. The United States can be divided into regions, too. One way to do this is by grouping states with similar features into five different regions.

In this lesson, you will learn how geographers study regions. Geographers have identified five major themes, or topics, to help them organize the study of geography. Maps are useful for understanding these five themes of geography:

Location: Where is this place located? What is it near?

Place: What is this place like?

Human-environmental interaction: How does this place affect the people living here? How do the people who live here affect this place?

Movement: How do people, goods, and ideas move to and away from this place?

Regions: What features about this place set it apart from other places?

Try answering the questions above about your school. Now you are thinking like a geographer. Keep thinking that way as you read more about the regions of the United States.

◀ You can use maps to explore different regions in this country.



Social Studies Vocabulary

basin

coastal plain

global grid

inland

line of latitude

line of longitude

map key

plateau

region

scale

special-purpose map

North Pole



South Pole

If you face the North Pole, you are facing north. If you face the South Pole, you are facing south.

If you get lost, you can use a map and a compass to find your way. Once you know one cardinal direction, you can determine the other three.

1. Location and Direction

Every place has its own location. A location is the site where something can be found. People describe locations in many ways. You might describe the location of your home by talking about what it is near. This is the relative location of your home. Or you might use your street address. This is the exact location of your home.

Geographers use globes and maps to show the locations of places on Earth. Globes are round like Earth. They are useful when you want to know where places are on the planet. When you need to see where many places are all at once, maps can be more useful. Maps show all or part of Earth on a flat surface.

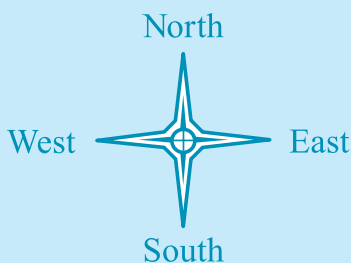
To use a map, you need to know the four cardinal directions. North is the direction toward the North Pole. When you face north, your back is facing south. East is to your right. West is to your left. On a map, the letters N, S, E, and W stand for the cardinal directions.

The intermediate directions are halfway between the cardinal directions. Northeast, for example, lies halfway between north and east. The other intermediate directions are southeast, southwest, and northwest. On a map, the letters NE, SE, SW, and NW stand for the intermediate directions.

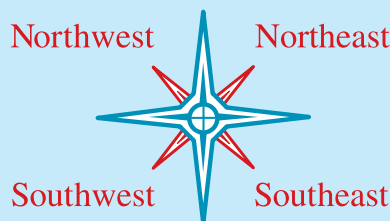
Most maps use a compass rose to show directions. A compass rose sits on a map, with N pointing toward the North Pole. This tells you which way on the map is north. Why is it important to know your directions?

Directions on a Map

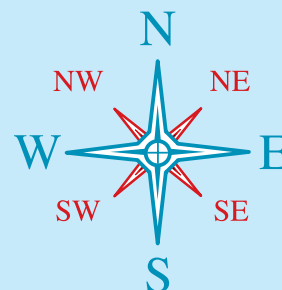
Cardinal Directions

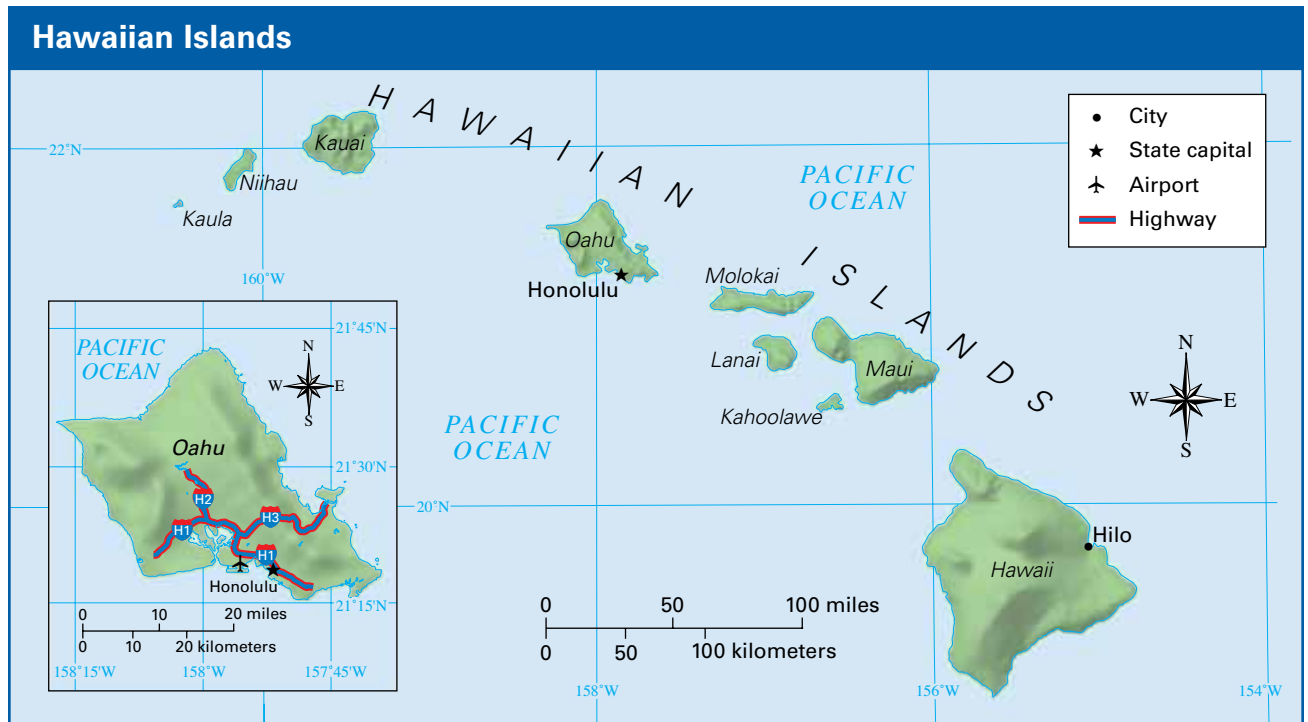


Intermediate Directions



Compass Rose





2. Scales and Symbols

Maps never show sizes and distances as they really are. They are always much smaller than the part of Earth they represent. A short distance on a map represents a much greater distance on Earth.

The **scale** of a map shows the relationship between map distances and real distances. A map's scale can be shown in many ways. The most common is a line scale. The scales on the Hawaiian Islands map show two measures of distance. One is for miles, the other is for kilometers.

Maps use symbols to show other kinds of information. A symbol is anything that stands for something else. Sometimes symbols look like what they stand for. For example, mapmakers often use tiny airplane symbols to stand for airports.

Color is another important map symbol. The color blue usually stands for water. Mapmakers often use different colors to show separate states or countries.

Mapmakers use a **map key** to explain their symbols. (A key is also called a legend.) The map key tells what each symbol stands for. Look at the key on this map. What does the star stand for?

Maps like this one use scales and symbols. According to the map key, where is the airport on this map?

scale a diagram that shows the relationship between distances on a map and real distances on Earth

map key an explanation of what the symbols on a map stand for

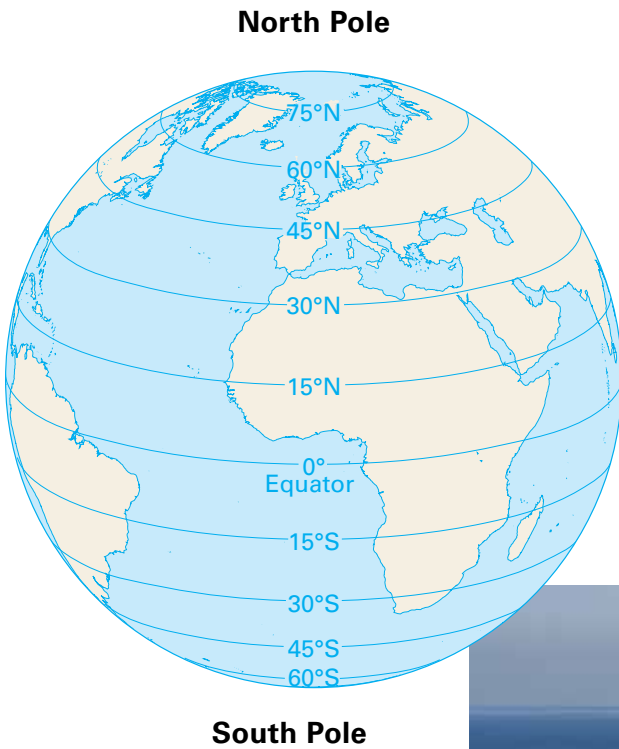
3. Lines of Latitude

Suppose you want to describe the exact location of a place on Earth. To help you do this, mapmakers invented a system of imaginary lines around the globe. Some of these lines run east and west around the globe. They are called **lines of latitude**. Lines of latitude are also known as parallels because they are always the same distance apart.

Lines of latitude tell us how far north or south of the equator a place on Earth is. The equator is a line of latitude. It divides Earth into two halves. They are called the Northern Hemisphere and the Southern Hemisphere. Because the United States lies north of the equator, it is in the Northern Hemisphere.

The equator is the starting point for measuring latitude. It is labeled 0° , or zero degrees. Parallels north of the equator are labeled N. The North Pole is 90°N . Parallels south of the equator are labeled S. The South Pole is 90°S . Lines of latitude measure between 0° and 90°N or 90°S . The closer a parallel is to the equator, the smaller its number of degrees. The closer it is to one of the poles, the greater its number of degrees. Do you live closer to the North Pole or the equator?

line of latitude an imaginary line that runs east and west around the globe; also called a parallel



A boat's location on the ocean can be pinpointed using imaginary lines. These are called lines of latitude and longitude.



4. Lines of Longitude

Lines of longitude tell us how far to the east or west we need to go to locate a place. Look at this map. It shows lines circling Earth. Lines of longitude run north and south between the North and South poles and are called meridians.

Unlike lines of latitude, meridians are not parallel to each other. All meridians meet at the North Pole and the South Pole. The distance between meridians is greatest at the equator. That distance shrinks as you move from the equator to the poles.

Can you find the line that is labeled *prime meridian* on the map? This imaginary line divides the world into the Eastern Hemisphere and the Western Hemisphere. Because the United States lies west of the prime meridian, it is in the Western Hemisphere.

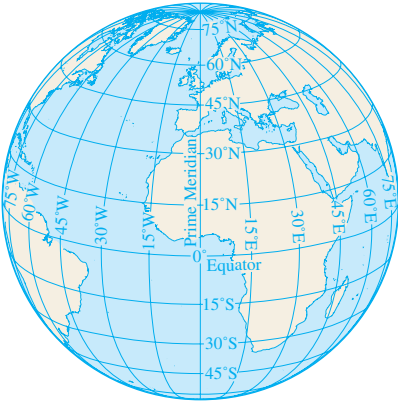
The longitude of the prime meridian is 0° . Lines of longitude west of the prime meridian are labeled W. Lines of longitude east of the prime meridian are labeled E.

Lines of longitude measure between 0° and 180° . The closer a meridian is to the prime meridian, the smaller its number of degrees. The farther it is from the prime meridian, the greater its number of degrees.

line of longitude an imaginary line that runs between the North and South Poles; also called a meridian



North Pole



South Pole

global grid the grid formed by crisscrossing lines of latitude and longitude on a map

Lines of latitude and longitude help us locate places.

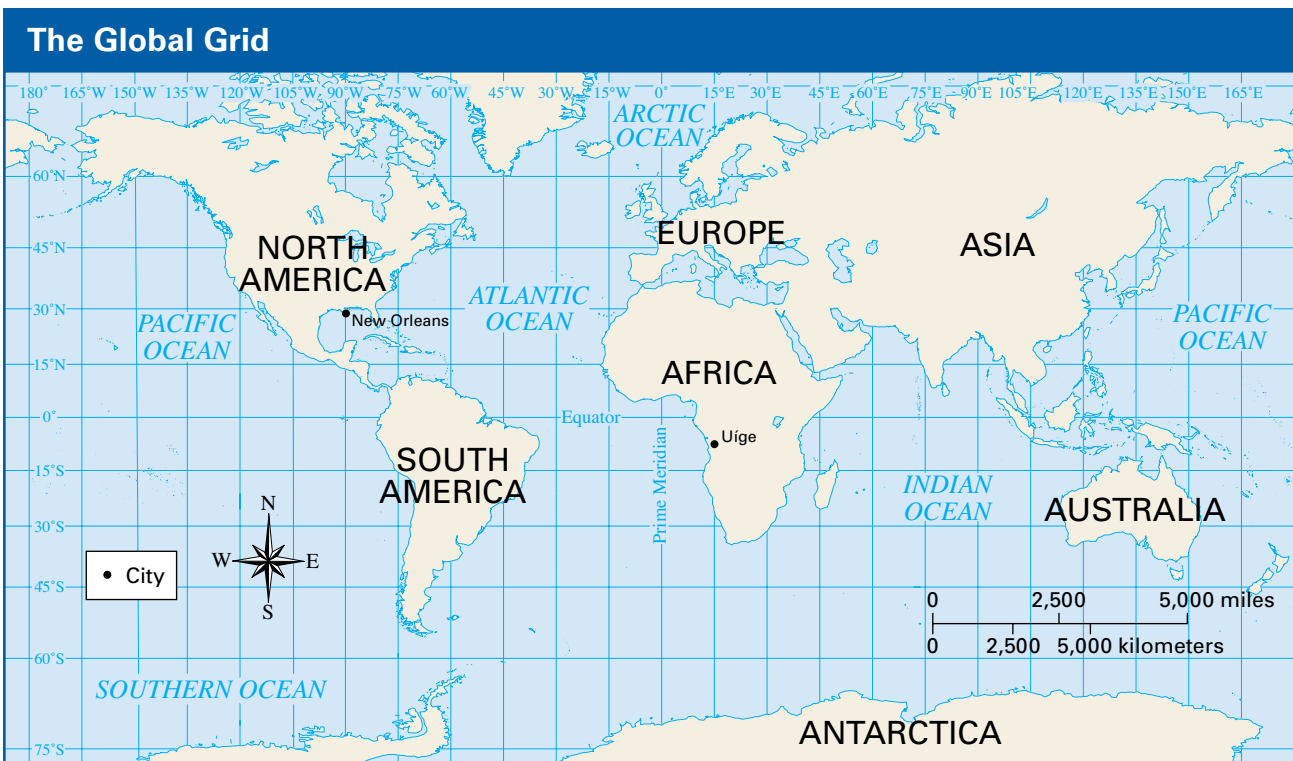
5. The Global Grid

Mapmakers combine lines of latitude and longitude to form a grid. A grid is a set of crisscrossing lines. The grid below is called a **global grid** because it covers all of Earth.

Using the lines of latitude and longitude on the global grid, you can locate places anywhere in the world. Let's find New Orleans on the map below. It is 30 degrees north of the equator, or 30°N. It is also 90 degrees west of the prime meridian, or 90°W. Geographers call the degrees of latitude and longitude a set of coordinates. You state latitude first, then longitude. New Orleans's coordinates are 30°N, 90°W.

The city of Uíge (weej), Angola, is located at 8°S, 15°E. To find this location, put your finger on the map where the equator and the prime meridian meet. Move your finger east to the 15°E meridian. So far, so good.

Now you have a problem. The 8°S parallel is not marked on this map. You know, though, that 8°S must lie between the equator and 15°S. If you move your finger along the 15°E meridian to the spot halfway between these two parallels, you will find the city you are looking for.



Elevation in the United States



6. Kinds of Maps

Geographers make different kinds of maps for different purposes. Maps that show natural features are called physical maps. Physical maps show landforms, such as mountains, valleys, and plains. They also show bodies of water, such as rivers, lakes, and oceans. Other maps show human features. For example, a political map shows cities, capitals, states, and countries.

Special-purpose maps show just one kind or type of information. Rainfall maps, for example, show how much rain falls in different parts of the world. Population maps show how many people live in different areas. Language maps show what languages people speak in different places.

One example of a special-purpose map is an elevation map of the United States. Elevation is the height of the land above the ocean. The surface of the ocean, called sea level, is at zero elevation. The highest point in North America is Denali, or Mt. McKinley, in Alaska. Its elevation is 20,320 feet. What does the map show about your state's elevation?

This special-purpose map shows the elevation of the United States. Use the elevation key to find the highest areas in the country. What is the elevation where you live?

special-purpose map a map that shows just one kind of information such as rainfall or elevation

Regional Map of the United States



This map shows five regions in the United States. How do these regions differ?

region an area that shares similar features

7. Regions in the United States

Now that you know how to read maps, you can use them to study different areas in the United States. Certain areas may have similar characteristics. An area that shares similar features is called a **region**.

Geographers can divide the United States into many different regions. In this map, the United States has been divided into five regions. They are the Northeast, Southeast, Midwest, Southwest, and West. As you can see on the map, each region has a different group of states. In which region is your state located?

Each region is named after its location in the United States. For example, suppose you are standing in the middle of this country with a compass. In which direction can you find Florida? If you use your compass, you can see that Florida is toward the south and east. So Florida and the states around it are in the Southeast region.

The other four regions are also named after where they are found in the United States. Find the regions on the map. How would you describe their locations?

Other than location, how else do these regions differ? Often part of what makes a region special is an important natural feature, such as an ocean coast, a chain of mountains, a desert, a series of lakes, or a great river. The West region, for example, borders the Pacific Ocean, while the Northeast region borders the Atlantic Ocean.

The features in a region can affect the people living there. For example, the Midwest is mostly made up of flat plains covered with rich soil. So, many people who live there are farmers. People can also affect the environment in good ways and bad. Farmers in the Midwest, for instance, might protect the environment by growing crops on terraces to prevent erosion. But they might also use pesticides that can pollute soil.

Climate also varies from region to region. In the Southwest winters are mild, but in the Midwest and Northeast, winters are harsh and snowfall is common. Climate also affects how people live. It shapes how we dress, what we eat, and how we spend our spare time.

Each region also has its own history and way of life. People in different regions eat different foods. They celebrate different holidays. They wear different kinds of clothing. They tell particular stories and honor special heroes.



People interact with their environment. For example, there are many farmers who grow corn on the flat plains of the Midwest.



This is what fall looks like in Vermont, a state in the Northeast region.

coastal plain low, flat land that runs along a coast

8. The Northeast

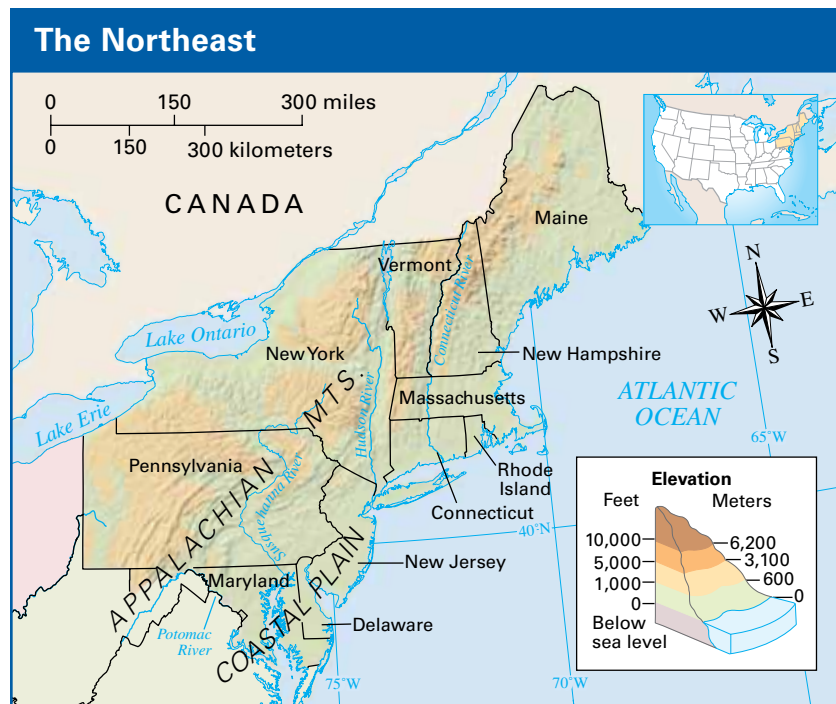
The Northeast region is located close to the Atlantic Ocean. There are 11 states in this region. You can see these states on this map. Despite its many states, the Northeast region is the smallest region. With big cities such as New York City, Boston, and Philadelphia, the Northeast region is the most densely populated region in the United States.

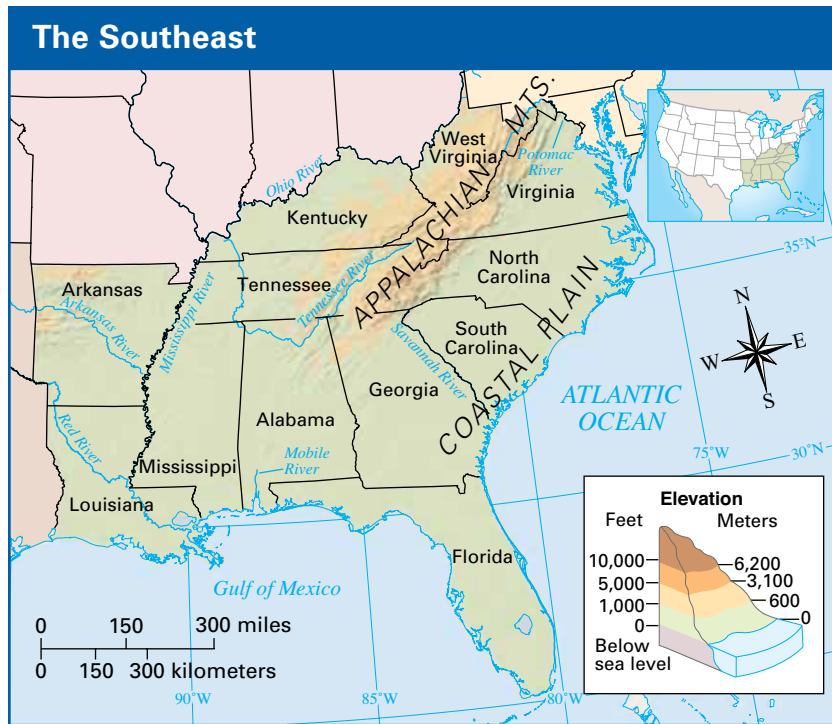
The region includes a variety of landforms. A low, flat plain known as a **coastal plain** runs along the coast of New Jersey, Delaware, and Maryland. The Coastal Plain has sandy soil and marshy land. The Appalachian mountain range runs through the entire region. This range has many forests. Large rivers flow out of these mountains. The rivers that flow east cut across the Coastal Plain to the Atlantic Ocean.

The Northeast region has a different climate than the other regions in United States. The climate of a place is the kind of weather it has over many years. Temperature, rainfall, and wind conditions are parts of climate.

In the Northeast region, winters are long and cold. Snowstorms are common. Summers are warm and sometimes can be hot.

This map shows the Northeast region in the United States. It is the most densely populated region.





This is a map of the Southeast region of the United States. How many features do you recognize in this region?

9. The Southeast

Just south of the Northeast region is the Southeast region. This region is composed of 12 states and includes big cities like Atlanta and Miami. The Southeast does not have as many big cities as the Northeast, but the two regions do share a number of features.

Like the Northeast, the Southeast is bordered by the Atlantic Ocean on the east. The Appalachian mountain range and Coastal Plain found in the Northeast also extend into the Southeast. Which states in the Southeast region include these features?

The Southeast has other features, too. The Gulf of Mexico, for example, with its warm ocean water lies to the south of the region. The Southeast also has forests, beaches, swamps, and rivers. One of those rivers is the Mississippi River, which is one of the largest rivers in the United States. The Mississippi River starts way up north in Minnesota and flows south more than 2,300 miles before emptying into the Gulf of Mexico.

The Southeast region has a mild winter climate. Winters there are usually warmer than in the Northeast. Summers are hot and humid. Humid means damp or moist.

Wetlands and swamps are common in the Southeast region.





The Midwest region has some of the best conditions for farming in the United States.

inland not bordering an ocean or a large body of water by an ocean

10. The Midwest

The Midwest is one of the regions that lies in the center of our country. There are 12 states in the Midwest region. The largest city in the region is Chicago, which is the third largest city in the United States.

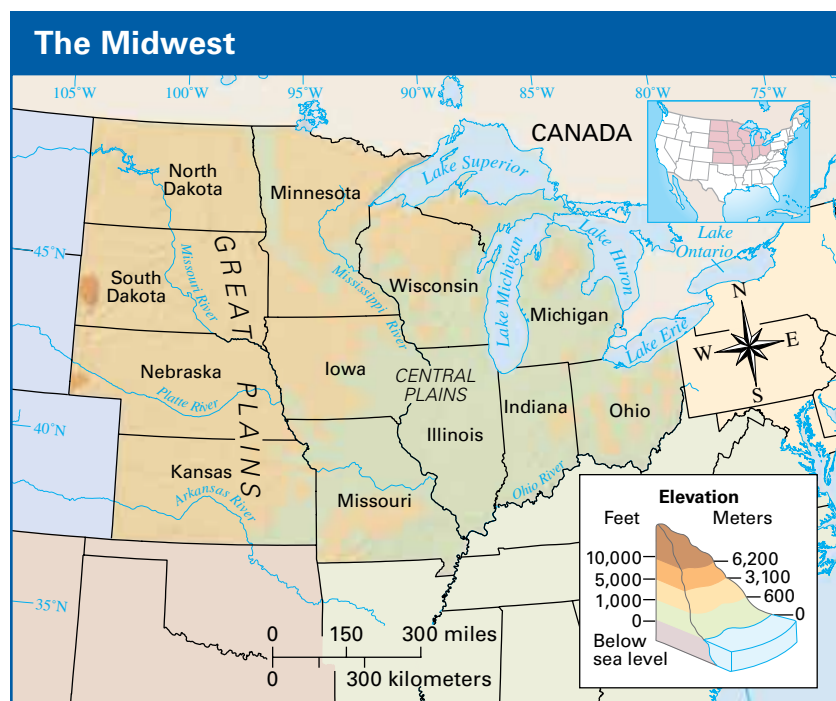
The Midwest is an **inland** region. This means it does not border any ocean. However, the Great Lakes form part of the Midwest's northern border. The five Great Lakes are Lakes Superior, Michigan, Huron, Erie, and Ontario. These lakes are so large that they hold one-fifth of all the fresh water on Earth.

Most of the Midwest region is flat plains. The Central Plains and Great Plains are covered with some of the best soil on Earth. That soil makes the Midwest an important farming region. The region is known for growing crops such as corn, soybeans, and wheat.

The Mississippi River also runs through the Central Plains. It is a busy water highway that connects to the Gulf of Mexico and the Atlantic Ocean. Many boats and barges travel on this river.

The climate varies greatly by season in the Midwest. Winters are bitter cold, and snowfall is common. However, summers are hot and humid.

This is a map of the Midwest region. What do you notice about the water features in this region?





This is a map of the Southwest region of the United States. What features does it share with other regions?

plateau a high, flat landform that rises steeply from the land around it

11. The Southwest

The Southwest region is positioned just south of the Midwest region. The Southwest is made up of only four states.

One of them is Texas, the second largest state in the United States. The coastal plain extends from the Southeast into Texas, and the Gulf of Mexico borders the state. Texas also has three of the ten most populated cities in America. One of those is Houston, the largest city in the Southwest region and the fourth largest city in the country.

Plains cover the eastern part of the Southwest. Farther west, the land rises to form the Colorado Plateau. A **plateau** is a high, flat landform that rises steeply from the land around it.

Most of the Colorado Plateau is crisscrossed by many deep canyons. The largest and most famous is the Grand Canyon, which is in Arizona. The Grand Canyon is carved by the Colorado River, which is the second longest river in the region behind the Rio Grande.

The Southwest region has a dry climate with high temperatures. In the summer, it is not uncommon for the temperature to reach triple digits in some places. Winters are cooler, but snow is rare.

It is difficult for many plants to grow in the dry climate of the Southwest region.



12. The West

The West region is to the west of the Midwest and the Southwest. It borders the Pacific Ocean.

The West is made up of 11 states. One of the states is Alaska, which is the biggest state in the United States. Another state is California, which is the most populous state. California's biggest city, Los Angeles, is the second most populous city in the country.

Mountain ranges stretch across much of the West. The Rocky Mountains begin far to the north in Alaska. From there they stretch south through Canada, Montana, Idaho, Wyoming, and Colorado.

The Great Basin lies to the west of the Rockies. A **basin** is a bowl-shaped landform that is lower than the land around it. Ranges of mountains circle around the Great Basin.

There are several mountain ranges along the Pacific coast. The Coast Ranges are mountains that seem to rise right out of the Pacific Ocean. The Cascade Range and the Sierra Nevada are further inland. (*Sierra Nevada* means "snowy range" in Spanish.)

basin a bowl-shaped landform that is lower than the surrounding land

This map shows the West region of the United States. Based on the scales, which state is the largest in the region?





Oregon's Willamette Valley lies between the Coast Range mountains and inland mountains. The soil here is rich enough to plant many crops.

Between the Coast Range mountains and the inland mountains are two rich farming valleys. One is California's Central Valley. The other is Oregon's Willamette Valley.

Hawaii is also mountainous. Volcanoes formed its islands long ago. A volcano is an opening in Earth's surface through which hot, melted rock and ash may pour out. As the liquid rock cools, it forms a cone-shaped mountain.

Lesson Summary

You now know that there are different kinds of maps. Some maps show locations of places around the world. Lines of latitude and longitude help us find exact locations of places and measure distances north to south and east to west. Map scales also help us measure distances from place to place. Did you remember to think like a geographer as you looked at the maps of each region?

As you read about each region of the United States, you considered the five themes of geography: location, place, human-environmental interaction, movement, and regions. You looked at physical maps of each region to see where a place is located and what it is like. There are many other kinds of maps, including special-purpose maps. To compare climates around the country, you might use a climate map. A product map might show what each region grows or manufactures.

Which region do you live in? How is it different from the others? Each region of the United States varies by location, natural features, climate, and way of life.

Regions of Your State

New Jersey's government hired geographers to create a map like this. It shows high and low places as well as regions. You can find similar maps on government Web sites, which are usually reliable sources.

You have read about the regions of the United States. A region is an area with common features that set it apart from other areas. In your state, there may be a region with mountains or valleys. Another region may be by an ocean or river. Knowing your state's regions can help you understand how natural features affect the people who live there.

To explore different regions of your state, first make a large outline of the state. Gather sources that can help you label your map with physical features and region names.

These sources might include maps from books or online. For example, if you live in New Jersey, you might find maps and useful photographs on New Jersey's state government Web site.

On your map, label major bodies of water, mountains, and other big landforms. Label the neighboring states. Label your community on the map. Add any additional land features that you know about.

Now label the regions on your map. In New Jersey, the regions are called: Valley and Ridge Region, Highlands, Piedmont, and Coastal Plains. The region names come from the state's landforms, such as mountains, valleys, plateaus (Piedmont), and waterways.





Regions and Their People

Now let's use your map to learn how people live in the region. Read about your state's regions in books and Internet articles. For each region, answer questions that help you understand how the region's features affect the people who live there. Are there mountains, farmland, forests, lakes, or rivers? Is it near an ocean or far inland? What do people do for a living? Do they use the land for fun activities?

In New Jersey, for example, people in the Piedmont region built highways, railways, and shipping docks by the Atlantic Ocean. Transportation near this body of water affect jobs. Many people work at jobs that move products over land and water. The Coastal Plains region includes the Jersey Shore by the Atlantic Ocean. People built boardwalks and amusement parks by the shore. They enjoy the sandy beaches.

Write a few paragraphs about your region. Tell how natural features affect how people live. Share this information with your classmates.

Every year, more than 600,000 containers arrive at Port Newark in the Piedmont Region. They travel on ships, trucks, and trains. They take products all over the world.

The Mighty Mississippi

The Mississippi River is one of the largest rivers in the United States, and it runs down the middle of the country. The famous author Mark Twain often wrote about the Mississippi and how it influenced the states and their people. Why do geographers consider it one of the most important rivers in the nation?

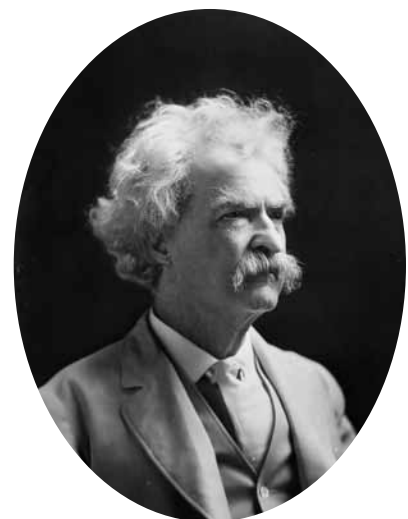
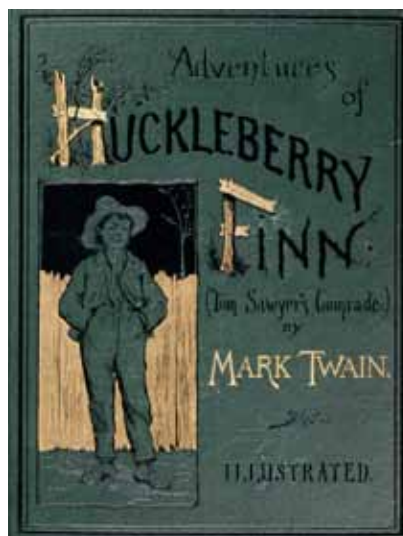
It was dark. Tom Sawyer and Huck Finn could hear the great river in front of them. They found their raft, untied it, and climbed on. In his book *The Adventures of Tom Sawyer*, Mark Twain tells what happens next:

“The raft drew beyond the middle of the river; the boys pointed her head right, and then lay on their oars . . . They came near letting the current drift them out of the range of the island.”

The boys were off on an adventure down the great Mississippi River. Although Tom and Huck are made-up characters, the Mississippi is a real river. It is just as remarkable as the two friends in the story discovered.

Many readers enjoyed Twain’s story. He followed it with *Adventures of Huckleberry Finn*. This book, too, features the Mississippi River. Twain’s writings brought the river into the minds of many Americans.

Mark Twain’s *Adventures of Huckleberry Finn* was published in 1884. Ever since, Americans have enjoyed reading about Huck’s adventures.





As a boy, Mark Twain loved to watch steamboats like this travel down the Mississippi River. The map in this image shows how far people could travel along the Mississippi.

Life on the Mississippi Long Ago

Mark Twain's real name was Samuel Clemens. He based Tom and Huck's adventures on his own life growing up in a small town on the Mississippi.

To the young boy, one of the most exciting sounds in the world was the cry "S-t-e-a-m-boat a-comin'!" The steamboats brought interesting people and new things—like goods for the store or letters from faraway places.

In 1859, Twain became a steamboat pilot. Standing behind the wheel of his boat, he learned to avoid dangers in the muddy waters. He took his name as a writer from the calls the boatmen made to tell the pilot how deep and safe the water was: "M-a-r-k three! . . . Half twain! . . . M-a-r-k twain!"

In Twain's time, the Mississippi was like a great highway. People could travel down smaller rivers and then into the Mississippi all the way from Minnesota to the Gulf of Mexico.

People used rafts and boats to carry goods down the Mississippi to the busy port at New Orleans. After the invention of the steamboat, people could send goods up the river, too.

This photo shows the Mississippi river overflowing in 1898. Levees have been built to stop future flooding.



levee a wall typically made of dirt, built along a river to keep it from flooding

Levees were used to prevent the river from flooding nearby areas.



Changing the River

People depended on the Mississippi River, but they could never quite rely on it to be safe for traveling or even living nearby. Travel was dangerous for boats in low water, and they could even crash into tiny islands in the river. During very rainy times, the river sometimes overflowed and flooded the surrounding settlements and farmland. In his writings, Mark Twain recalled that during one flood, the river became 70 miles wide.

With so many dangers, people began to change the river. They built **levees** to stop the river from flooding farms and towns, which worked well most of the time. People also changed the river to improve travel. They built bridges across the river. They also dug mud out of the river bottom to make it deeper so that large boats could travel more easily.

Even with these changes, the river was not always predictable. As Mark Twain once wrote, "The Mississippi River will always have its own way; no engineering skill can persuade it to do otherwise . . ." This proved true when the river still flooded in 1898, despite the levees. People had to fix the levees and build more of them. They hoped the new ones would hold better.

The River Today

The changes people made to the river have made it easier to use. If Mark Twain visited the river today, he would see huge barges that carry millions of tons of goods up and down the river each year.

But changing the river does not mean people control it. In 2005, a hurricane called Katrina hit the city of New Orleans. Huge winds and heavy rains from the storm made the Mississippi overflow. One by one, the levees failed. Most of the city was under water. Lots of people climbed onto roofs to get away from the water, but many did not get away and died. Thousands of people lost their homes and their businesses. The storm and the flood cost billions of dollars. It was one of the greatest disasters in our nation's history. Since that time, people have worked hard to rebuild New Orleans. They have looked to geographers for help.

Geographers study the Mississippi River and the ways human change influences it. And though the river might never be completely controlled, geographers' knowledge helps people who live near the Mississippi River plan well for the future. ♦

Today, the Mississippi is still a major water highway. Barges carrying goods regularly travel down the river.

